

MOLDED CROSS VEHICLE BEAM

ABSTRACT OF THE DISCLOSURE

A molded cross vehicle beam which includes a hollow blow molded thermoplastic rigid member that is integrally attached to a rigid support, e.g., a U-shaped metal plate, and at least one attachment element, is described. The rigid support (12) has a first surface, a second surface and a plurality of perforations having edges. The attachment element(s) (81, 84) have a first surface, a second surface and a plurality of perforations having edges. The attachment element provides a means of attaching the molded cross vehicle beam to a separate structure (e.g., the A-pillars of an automobile). A thermoplastic parison precursor of the hollow rigid thermoplastic member (15) is blow molded against the first surfaces of the rigid support (12) and the attachment element (81, 84). Portions of the thermoplastic parison extend through perforations in each of the rigid support (12) and the attachment element (81, 84), thereby attaching the hollow thermoplastic rigid member (15) to the rigid support (12) and the attachment element (81, 84). The present invention also relates to a process by which the molded cross vehicle beam is prepared.